

**REPORT on the TWO-SHIFT OPERATIONS
of the GRAPHIC SUPPLIES SECTION**

September 2000

00-09



Office of Audits



UNITED STATES GOVERNMENT PRINTING OFFICE
OFFICE OF THE INSPECTOR GENERAL

memorandum

DATE: September 20, 2000

REPLY TO:
ATTN OF: Inspector General

SUBJECT: Report on the Two-Shift Operations of the Graphic Supplies Section

To: Manager, Quality Control and Technical Department

Attached is the report of an Office of Inspector General (OIG) audit on the two-shift operations of the Graphic Supplies Section (GSS). The audit was conducted from April through June 2000.

The objective of the audit was to evaluate the economy, efficiency, and effectiveness of the GSS maintaining two shifts as a result of concerns raised from the issuance of the OIG Audit Report Number 00-05 *Report on Improving the Controls over Inventories in the Graphic Supplies Section* on April 3, 2000.

The audit determined that the GSS could accomplish its mission more economically, efficiently, and effectively with a single-shift operation in accordance with Standards 1 and 4 of GPO Instruction 825.18A *Internal Control Program*. GSS could: (1) benefit economically by putting over \$13,000 annually to better use; (2) use second-shift GSS employees more efficiently without the assistance of other GSS employees; and (3) allow the first-shift Foreman, the Chief, Chemical and Environmental Division, and the Manager, Quality Control and Technical Division, to supervise and control the entire GSS operations and personnel more effectively.

As a result, the OIG recommends consolidating GSS's second-shift operation into the first shift with a variable work schedule. The Manager, Quality Control and Technical Department, concurred with the finding and recommendation and have begun preliminary discussions with Labor and Employee Relations personnel to combine the two shifts.

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Mr. Joseph Verch, Supervisory Auditor, and Mr. Michael Ober, Auditor-In-Charge, conducted this audit. The OIG appreciates the cooperation and courtesies extended during the audit by the officials and staff of Quality Control and Technical Department, Chemical and Environmental Division, GSS, Production Department, and Safety Branch.


ROBERT G. ANDARY

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**REPORT ON THE TWO-SHIFT OPERATIONS
OF THE GRAPHIC SUPPLIES SECTION**

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**U.S. Government Printing Office
Office of the Inspector General
Office of Audits**

**REPORT ON THE TWO-SHIFT OPERATIONS
OF THE GRAPHIC SUPPLIES SECTION**

RESULTS IN BRIEF

The Government Printing Office (GPO) Office of Inspector General (OIG) has completed an audit, at the request of the Manager, Quality Control and Technical Department, on the two-shift operations of the Graphic Supplies Section (GSS). The objective of this audit was to evaluate the economy, efficiency, and effectiveness of the GSS maintaining two shifts.

The OIG conducted the audit from April through June 2000, and found that the GSS could accomplish its mission more economically, efficiently, and effectively with a single-shift operation in accordance with Standards 1 and 4 of GPO Instruction 825.18A *Internal Control Program*. In particular, with the consolidation of the two shifts, GSS would:

- Benefit by putting over \$13,000 annually to better use by terminating the second-shift differential pay of 11 percent for three GSS employees;
- Use the second-shift Ink Mixer/Processor and the Printing Materials Processor more efficiently with a variable work schedule¹ and without the assistance of other GSS employees; and
- Allow a more effective use of supervision and control over GSS operations and personnel by the first-shift Foreman, the Chief, Chemical and Environmental Division, and the Manager, Quality Control and Technical Division.

The OIG recommends that the Manager, Quality Control and Technical Department, consider consolidating GSS's second-shift operations into the first shift with a variable work schedule.

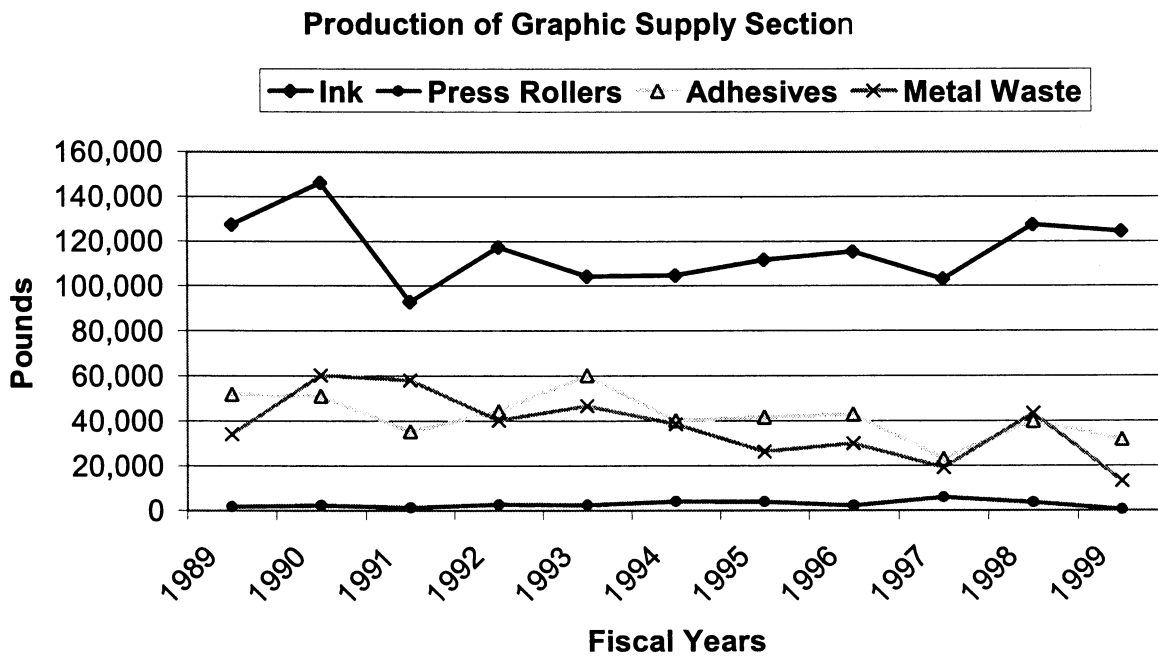
¹ A variable work schedule allows the Ink Mixer/Processor to arrive early to devise the formula for the ink, weigh the ink, and mix the ink in a disbursing machine before the Ink Mill Operators arrive.

BACKGROUND

The Graphic Supplies Section (GSS) is located in GPO's Building 1, 701 N. Capitol St. NW, Washington, D.C. During a reorganization within the Quality Control and Technical Department (QCTD), GSS (formerly known as the Graphic Supplies Division) became part of the Chemical and Environmental Division on June 1, 1999. GSS has nine employees:

| Title | Number of Employees |
|------------------------------|---------------------|
| Supervisor | 1 |
| Work Leader | 1 |
| Ink Mill Operator | 3 |
| Ink Mixer/Processor | 1 |
| Printing Materials Processor | 2 |
| Supply Clerk | 1 |
| Totals | 9 |

In 1990, GSS expanded from having only one-shift to having two-shift operations, because of an increased workload and the ability to handle "Hot" jobs more efficiently, as well as to increase the silver and waste recovery. GSS's workload has since lessened over the years as shown in Appendix I and in the chart below.



GSS is responsible for manufacturing ink and adhesives, recovering waste and silver, reading alcohol meters, and maintaining press rollers. GSS's first-shift operation consists of six employees that work from 8:00 a.m. to 4:30 p.m. The second-shift operation has three employees that work from 2:30 p.m. to 11:00 p.m. The second-shift employees receive an 11-percent night differential pay, to mix and weigh ink, recover waste and silver, read alcohol meters, and maintain press rollers.

OBJECTIVE, SCOPE, AND METHODOLOGY

The objective of this audit was to evaluate the economy, efficiency, and effectiveness of the GSS maintaining two shifts. As part of the audit, the system of internal controls was examined and observed.

We conducted this audit during the months of April through June 2000 in accordance with generally accepted Government auditing standards, and included such tests of the procedures, operations, and internal controls in place as were considered necessary under the circumstances. There were no instances of noncompliance with laws and regulations and no significant instances of abuse found during the audit.

We reviewed:

- Change 17 to GPO Instruction 105.1B *Organization and Functions of the Government Printing Office, Quality Control*, dated January 8, 1995, to identify specific responsibilities for Graphic Supplies (Division) Section;
- GPO Instruction 825.18A *Internal Control Program*, dated May 28, 1997, to identify policies, standards, and responsibilities for conducting internal control reviews of GPO programs;
- Prior OIG Audit Report 00-05 *Improving Controls over Inventories in the Graphic Supplies Section*, dated April 3, 2000, to obtain additional background information; and
- GSS's annual production in pounds for Fiscal Years 1989 – 1999.

The OIG audit team also observed GSS's first and second-shift operations. In addition, we interviewed appropriate management officials and staff of Quality Control and Technical Department, Chemical and Environmental Division, GSS, Production Department, and Safety Branch.

FINDING AND RECOMMENDATION

I. SINGLE-SHIFT OPERATION

FINDING

An Office of Inspector General (OIG) audit of the two-shift operations of the Graphic Supplies Section (GSS) determined that GSS could accomplish its mission more economically, efficiently, and effectively with a single-shift operation in accordance with Standard 1 of GPO Instruction 825.18A *Internal Control Program*:

“...Resources should be efficiently and effectively allocated for duly authorized purposes.”

The OIG review found that three GSS employees working the second shift receive an additional 11 percent night differential pay of \$13,924 for Calendar Year 2000. However, consolidating the two shifts, benefits GPO economically each year by putting the differential pay to better use.

| Title | Hourly Wage | Differential Percentage | Weekly Hours | Annual Weeks | Total |
|---|-------------|-------------------------|--------------|--------------|-----------------|
| PPW (Printing Materials Processor) KA-07/03 | \$18.73 | 11% | 40 | 52 | \$4,285 |
| PPW (Ink Mixer/Processor) KA-07/03 | 18.73 | 11% | 40 | 52 | 4,285 |
| PPW (Leader) KA-09/03 | 23.40 | 11% | 40 | 52 | 5,354 |
| Totals | | | | | \$13,924 |

In addition, consolidating two shifts allows a more efficient use of GSS personnel. For example:

- The first and second-shift Printing Materials Processors recover waste and silver; read alcohol meters; and maintain the press rollers with assistance from the first-shift Ink Mill Operator and the second-shift Leader. Consolidating the two shifts allows both Printing Materials Processors to work together to complete the three main duties without any assistance from the other GSS employees. This also allows the two first-shift Ink Mill Operators to do more weighing, testing/sampling, and manufacturing functions.

- Also, the Ink Mixer/Processor devises the formula for the ink, weighs the ink, and then mixes the ink in a disbursing machine on second shift. Coming in early on the first-shift allows the Ink Mixer/Processor to perform the same duties, as on second-shift, before the Ink Mill Operators arrive to weigh, test/sample, and manufacture the ink. The Foreman is then able to inform the Ink Mixer/Processor of “Hot” and current jobs on a more timely basis. The preparations of the ink mixing operations also begins at the end of the Ink Mixer/Processor’s shift, which would expedite the next day’s work.

Consolidating the two shifts also allows a more effective use of supervision and control over GSS operations and personnel by the first-shift Foreman, the Chief, Chemical and Environmental Division, and the Manager, Quality Control and Technical Division. Currently, the three supervisors are not able to monitor the entire second-shift operations or supervise the second-shift personnel. As stated earlier, the second-shift Leader currently assists the Printing Materials Processor along with assigning work to the first-shift Processors and Operators. Consolidating the two shifts allows the Leader to handle the work of other GSS employees on leave status when needed and to assist others. The Foreman would also assign work and supervise the entire GSS operations more effectively under the direct guidance of the Chief, Chemical and Environmental Division, and the Manager, Quality Control and Technical Division, in accordance with Standard 4 of GPO Instruction 825.18A:

“Managers should ensure that appropriate authority, responsibility, and accountability are defined and delegated to accomplish the mission of the organization, and that an appropriate organizational structure is established to effectively carry out program responsibilities.”

GSS and Production officials stated that 99.5 percent of all work involving the Production Department and GSS is handled during the first shift and that second-shift personnel do not order ink. GSS, Production, and Safety officials concluded that a second shift was not needed because:

- All “Hot” jobs are known before 3:00 p.m. and if overtime is needed, it is very infrequent;
- Silver and waste recovery and the reading of meters could be accomplished by 4:00 p.m. with no adverse effect on the Production Department;
- Production personnel could be provided a key to the Roller room to replace old press rollers with new rollers, as long as the proper paperwork was completed;
- The Ink Mixer/Processor could begin his shift an hour earlier than the Ink Mill Operators to ensure they could weigh, test/sample, and manufacture the ink after they arrived at work; and

- There are no additional safety issues presented from consolidating the two shifts.

RECOMMENDATION

The Manager, Quality Control and Technical Department, should consider consolidating Graphic Supplies Section's second-shift operation into the first shift with a variable work schedule (0009-01).

MANAGEMENT COMMENTS

The Manager, Quality Control and Technical Department, agreed with the finding and the recommendation.

GRAPHIC SUPPLIES SECTION'S FISCAL YEAR PRODUCTION IN POUNDS

| Fiscal Year | Ink | Press Rollers | Adhesives | Metal Waste Processed |
|--------------------|------------|----------------------|------------------|------------------------------|
| 1989 | 127,337 | 1,837 | 51,966 | 34,188 |
| 1990 | 146,144 | 2,296 | 51,212 | 60,341 |
| 1991 | 92,901 | 1,456 | 35,411 | 58,158 |
| 1992 | 117,340 | 2,767 | 44,316 | 40,372 |
| 1993 | 104,360 | 2,520 | 60,314 | 46,760 |
| 1994 | 104,767 | 4,062 | 40,333 | 38,671 |
| 1995 | 111,705 | 3,938 | 41,731 | 26,319 |
| 1996 | 115,334 | 2,197 | 43,048 | 29,993 |
| 1997 | 103,164 | 5,977 | 23,259 | 19,192 |
| 1998 | 127,352 | 3,644 | 40,029 | 43,387 |
| 1999 | 124,491 | 530 | 31,925 | 13,261 |

memorandum

DATE: September 19, 2000

**REPLY TO
ATTN OF:**

Manager, Quality Control & Technical Department

SUBJECT:

Draft Report on the Two-Shift Operations of the Graphic Supplies Section

TO: Inspector General

We have review the subject report and concur in its findings. Preliminary discussions are ongoing with Labor and Employee Relations personnel to assure an orderly transition in combining the two shifts.

Thank you for your assistance in this matter.



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